report.1992-04-14.RFA_Review

H & A OF NEW YORK

Geotechnical Engineers &
Environmental Consultants

10 April 1992
File No. 70185-43

United States Environmental Protection Agency
Region II, Room 1037
26 Federal Plaza
New York, New York 10278

APR 1 4 1992

Attention: Mr. Phil Masters

Subject: Draft Phase II RCRA Facility Assessment Review
Roth Bros. Smelting Corporation
East Syracuse, New York

Ladies and Gentlemen:

H&A of New York has reviewed the Draft Phase II RCRA Facility Assessment (RFA) Report for the Roth Bros. Smelting Corporation. The Draft RFA Report, dated October 1991, was prepared for USEPA by A.T. Kearney. This letter presents our comments on the report submitted on behalf of Roth Bros.

In summary, the Draft RFA identified 48 Solid Waste Management Units (SWMUs) and 2 Areas of Concern (AOCs) at the Roth Bros. site. Roth Bros. has independently arranged for environmental investigations on both Plants 1 and 2, and the reports of the results of the investigations have been provided to NYSDEC and the USEPA. The reports were referred to in the Draft RFA.

This letter is presented in two sections. The first section primarily relates to comments on factual information in the draft RFA which is inconsistent with our knowledge of the site. The second section presents comments on the suggested further actions and identification of SWMUs.

Comments Regarding Factual Content in the Draft RFA Report

Page II-24 Plant No. 1 Soil Investigations

The report states that the Plant 1 investigation was performed primarily to determine if discarded foundry sand impacted groundwater in the vicinity of Plant 1. It also states that no chemical analytical data were collected from these samples.

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The Plant 1 investigations were broader in purpose than stated in the RFA report. The investigations were performed to evaluate: 1) the potential presence and nature of heavy metal compounds (lead, chromium and cadmium) at selected plant areas; 2) the potential for petroleum product presence in the subsurface at a former gas station; and 3) potential effects of select neighboring properties on site soil/sediment conditions. In addition, soil and groundwater were both sampled and analytical data are presented in the Environmental Investigations report for Plant 1, prepared by H&A of New York in May 1991.

Page IV-14 Hydraulic Oil/Water Separator

The description of the SWMU indicates oil/sludge wastes collected at the oil/water separator are transferred to an adjacent waste oil tank, and the oil is ultimately burned on site in a Waste Oil Burner (SWMU 3). According to facility representatives, waste oil collected in the waste oil tank on Plant 1 is picked up by Safety-Kleen for proper offsite disposal. Waste oils generated from hydraulic oils from vehicle maintenance are collected in waste oil tanks (SWMU 30) on Plant 2. These are burned in the waste oil burner (SWMU 31) which is actually a large space heater in the maintenance area of Plant 2.

Page IV-20 Aluminum Turnings Storage Yard-History of Releases

The report references two soil samples (J8265 and J8266) as representative for the storage yard. These two samples were collected on Plant 2 and are a considerable distance from the Plant 1 yard referred to in the description.

However, two soil samples (J8275 and J8276) were collected from the aluminum turnings storage yard and analyzed for oil and grease as reported in H&A's Plant 1 Environmental Investigation. Laboratory results indicate the presence of oil and grease at concentrations ranging from 5400 to 6000 ppm.

The third paragraph under History of Releases refers to a report of soil borings/analytical results provided in Attachment E of the Draft RFA. Data provided in this attachment is not a complete copy of the report. A total of eight borings (B-1 through B-8) were drilled in the aluminum turnings yard by Blasland and Bouck Engineers in November 1989. Soil samples from these borings were tested for metals. A complete copy of their report is attached to this letter. The metal concentration ranges are as follows:

Aluminum	ND - 7.2 ppm
Arsenic	ND - 0.024 ppm
Barium	ND - 1.2 ppm
Cadmium	ND - 0.44 ppm

Copper	ND - 0.18 ppm
Lead	ND - 1.0 ppm
Mercury	ND - 0.0007 ppm
Silver	ND
Zinc	0.20 - 22 ppm

Maximum concentration limits for EP toxicity were not exceeded in the samples analyzed. The soils were also analyzed for volatile organics (VOCs), PCBs, total petroleum hydrocarbons (TPH) and oil and grease. In summary, VOCs were not detected above laboratory detection limits; PCBs were only detected in one sample (B-8) at 11.0 ppm, which is below the EPA cleanup criteria; TPHs were detected in four of the borings and identified as lubricating oil; and oil and grease were detected at concentrations ranging from 8,800-45,000 ppm.

Page IV-23 Secondary Containment for Fuel Tanks - History of Releases

The Draft RFA does not mention the previous sampling which has been performed at this unit (SWMU 10). One water sample (JB8283) was collected from within the containment wall in April 1990 and analyzed for oil and grease. Results indicate the concentration of oil and grease was 19 ppm.

Page IV-43 Baghouse No. 4 - History of Releases

The Oil and Grease concentrations are incorrectly stated in the RFA as ranging from 510 ppm to 2230 ppm. The report should state the Oil and Grease concentrations ranged from 439 ppm to 2230 ppm.

Page IV-57 Northern Waste Storage Area

The description of the additional six test borings and two trenches in the unpaved fill area is confusing and inaccurate.

Three test borings (B278, B279, B280) and two trenches (TP201, TP202) were placed in the unpaved fill area in the Northern Waste Storage Area (SWMU 29).

The higher TCLP lead levels were detected in B278 (0-2 ft.) at 5.05 ppm, and in TP202 (trench, 2.5-3 ft.) at 5.4 ppm. PCBs were detected in B278 and TP202 at 72.3 ppm and 164 ppm, respectively. B278 and TP202 are both located in the unpaved fill area and not in the area referred to as "native" soils.

Three additional soil borings (B291, B292, B293) were placed in the wooded area, north of the fill, in what is considered to be native soils. These three borings were converted to observation wells.

Page IV-60 Waste Oil Burner

The waste oil burner referenced in this unit description is actually a large space heater which burns used lubricating and hydraulic oils generated from forklifts and other maintenance equipment. The used oils are stored in waste oil tanks located in the maintenance shop of Plant 2.

Page IV-62 Steam Cleaning Room - History of Releases

The total chromium concentrations reported are incorrectly stated as ranging from 84 ppm to 108 ppm. The correct range is from 37.1 ppm to 108 ppm.

Page IV-63 Diesel Pumping Station - History of Releases

The total chromium concentrations reported are incorrectly stated as ranging from 84 ppm to 108 ppm. The correct range is from 37.1 ppm to 108 ppm.

Page IV-74 Lead Dross Shed - History of Releases

Discussion in the report refers to subsurface explorations including 24 shallow test borings conducted in the vicinity of this unit. However, these borings were not performed in the immediate vicinity of the lead dross shed and should not be considered as representative of the lead dross shed.

J8271 was collected near the lead dross shed, but not "under this unit", as stated. J8271 was a shallow surface sample (0-2 inches) located northeast of the lead dross shed and is more representative of the immediate vicinity of the shed. Locations are shown on Figure II-11 of the Draft RFA.

Three test borings (B274, B275 and B276) were conducted on the north side of the shed between the lead dross shed and the lead dust storage building. Lead concentrations range from 152 ppm to 2980 ppm; TCLP lead was not detected; and PCBs were less than 1 ppm at the locations sampled. These borings are representative of the area adjacent to the shed.

Page IV-79 Outfall Drainage Area 001

Regarding the paragraph which starts "Prior to 1990/1991": The two sample numbers discussed (J8267, J8266) are incorrect and do not represent samples collected from Drainage Outfall 001. The samples from Outfall 001 are J8269 and J8270. Analytical results show TCLP lead at 7.2 ppm; oil and grease concentrations below the detection limit; and PCBs at 8.5 ppm.

Regarding the paragraph starting with "During the 1990/1991 environmental investigations...": The data given in this paragraph are incorrect for Outfall 001 for the metals and PCBs. Total lead concentrations range from 214 ppm to 5250 ppm; total chromium concentrations range from 19.7 ppm to 157 ppm; and total cadmium range from 5.19 ppm to 68.6 ppm. PCB concentrations range from non-detectable to 2.35 ppm. TCLP lead was detected above 5.0 ppm regulatory limit at concentrations ranging from 7.2 to 36.2 ppm. No samples analyzed for cadmium or chromium were found to be above the regulatory levels for TCLP.

Page IV-80 Outfall 002 Drainage Area - History of Releases

Regarding the paragraph which starts with "During the 1990/1991 environmental investigations...": Data for oil and grease are incorrectly stated. The oil and grease values detected at Outfall 002 range from 4,460 to 93,900 ppm.

Page IV-81 Outfall 003 Drainage Area - Unit Description

The unit is described as "located east of Plant No. 2 and the Northern Waste Storage Area (SWMU 29), and south of Outfall 003." To be more accurate, Outfall 003 is located at northwest corner of Plant 1 and south of Outfall 002 (SWMU 46).

The report describes the Outfall 003 as receiving runoff from the maintenance yard. However, a review of Figure III-2 (page III-4 in the draft RFA report) indicates runoff from the maintenance yard is directed toward Outfall 002.

Page IV-85 AOC A - History of Releases

The report does not mention the 4 test borings (B287-B290) and two observation wells (B287-OW, B290-OW) installed during the 1990/1991 environmental investigations in the vicinity of the former underground storage tanks (USTs). Petroleum hydrocarbons were not detected above laboratory detection limits in B287-OW. In B290-OW, petroleum hydrocarbons were detected at 4.52 ppm by the IR Method; however, they were not detected by the GC Method. Oily sheen/product was not observed on the groundwater at the time of the well installation and groundwater sampling. Based on the single low concentration detected and observations made in the maintenance area wells, the data indicate that groundwater has not been adversely impacted at the locations sampled.

Suggested Further Actions and Recommendations for Re-evaluation of SWMUs

Page VI-8 and 9 Loading Station for Fuel Tanks/Secondary Containment for Fuel Tanks

The suggested further action for these Solid Waste Management Units (SWMUs) includes analyses of soil samples for Appendix IX volatiles, semi-volatiles and metals. These units represent the refueling station for two 15,000 gallon fuel tanks. Results from water sample (JB8283) from the oil tank retaining wall indicate a concentration of 19 ppm oil and grease. Given the nature of operations conducted at these units, and the existing data available from previous investigations, it is not necessary to perform Appendix IX analyses. Analyses to be performed should relate to the unit's operations, therefore for the fuel tank area, analyses will include petroleum hydrocarbon, volatiles by EPA Method 8020, and semi-volatiles by EPA Method 8270 Base Neutrals. Based on historical usage of these SWMUs, it is not necessary to conduct analyses for metals.

Page VI-29 Steam Cleaning Room and Diesel Pumping Station

Conclusions drawn in the section under soil/groundwater incorrectly state that "soil contamination by lead, chromium, cadmium, and oil and grease have been documented in the vicinity of these units." During the 1990/1991 environmental investigations, soil and groundwater were analyzed in this vicinity for lead, chromium and cadmium (total and TCLP), PCBs, and oil and grease. Lead was detected in concentrations in soil ranging from 1160 ppm to 8460 ppm. TCLP lead, chromium and cadmium were not detected above regulatory levels. Oil and grease concentrations ranged from 3075 to 22,600 ppm in the maintenance area.

The suggested further action is to determine the nature and extent of soil and groundwater contamination in the maintenance yard. The 1990/1991 environmental investigations included three test pits, four borings and two observation well installations. A discussion of the results is presented above for AOC A (IV-85). Based on investigations performed to date, the data indicate the groundwater has not been adversely impacted at the locations sampled. Further groundwater study of this area is not warranted.

Page VI-38 Suspected Oil Seep

The RFA suggests there is documented soil contamination at this SWMU location. This area was reported to have had oil seeps close to the ground surface in the past, associated with water entering the south bank of a former open ditch. No oil seeps have been observed since the ditch was converted to an underground drainage pipe. Results of soil sampling and analyses for metals, TCLP metals, PCBs and oil and grease did not indicate concentrations above applicable USEPA criteria. No additional sampling is warranted.

Attachment C SWMU/AOC Location Map

A review of the SWMU/AOC Location Map (Attachment C in the Draft RFA) indicates several SWMUs are incorrectly located. A copy of the map with the revised SWMU/AOC locations is attached to this letter.

Re-evaluation of SWMUs

The draft RFA has identified 48 SWMUs on the Roth Bros. site. However, based on the United States Environmental Protection Agency's (USEPA) definition of a SWMU, we do not believe all of the units identified should be considered as such. The term "Solid Waste Management Unit" defined in the 15 July 1985 Final Codification Rule includes any discernable waste management unit from which hazardous constituents may migrate, irrespective of whether the unit was intended for the management of solid or hazardous wastes. Additionally, certain areas associated with production processes contaminated as result of routine, systematic and deliberate releases of wastes, or hazardous constituents from wastes, fall in the category of SWMUs.

USEPA's proposed definition of a SWMU (in Federal Register/Vol. 55, No. 145/Friday, July 27, 1990/Proposed Rule) is as follows:

- Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at the facility at which solid wastes have been routinely and systematically released.

Many of the units identified in the draft RFA are actually production processes and/or areas which handle scrap metal or lead dross and do not fall within either the existing or proposed definition of SWMUs. The following addresses each area. First, the USEPA proposed rule specifically does not intend releases from production processes to be considered SWMUs unless it is determined the releases are routine and systematic in nature. (55 Fed. Reg. 30808). There is no evidence that hazardous constituents have migrated from any of the identified units nor that releases, if any, from the production processes are "routine and systematic." Second, EPA's regulations expressly state that scrap metal is a recyclable material that is not subject to the RCRA corrective action rules (40CFR Section 261.6 (a)(3)(IV). Accordingly, the scrap metal storage area is not a SWMU subject to corrective action. Third, the lead dross purchased by Roth Bros. for smelting is a by-product and not a spent material. Pursuant to EPA interpretative correspondence and the USEPA's RCRA regulations, lead dross is a by-product and not a solid or hazardous waste. Thus, the lead dross storage area is not a SWMU.

Based on the foregoing, and USEPA's existing and proposed definition of SWMU the following are not SWMUs:

Unit No.	Unit Name	Description
1	Chip Dryer	Process aluminum chips
4	Aluminum Furnaces	Smelts aluminum scrap
8	Aluminum Turnings Storage Yard	Storage of aluminum scrap metal
14	Zamac Furnace	Smelted zinc and aluminum scrap metal
15	Zinc Pot	Smelts zinc scrap
17	Lead Pots	Smelted lead and tin mixtures and lead slag
18	Lead tilt furnace	Smelted lead and tin scrap mixtures
19	Aluminum crusher	Crushes aluminum scrap metal
26	Sweat furnace	Melted iron/aluminum, iron/zinc and iron/solder scrap to separate two components.
37	Laboratory Satellite Accumulation	Handles aluminum filings.
42	Lead Dross Shed	Stores purchased lead dross prior to smelting.

In summary, the above described units (which are primarily process units) handle recyclable scrap metal, raw material, or by-product. These units do not fall into the proposed and existing definition of a SWMU.

The following four sets of SWMUs are recommended to be combined into four single SWMUs. as the source areas of the wastes managed are related and the units are physically connected. For SWMU 39, we recommend it be split into two SWMUs: one for Plant 1 and a second for Plant 2. The stormwater drainage system is physically connected to the outfalls, therefore the wastes managed within the stormwater drainage system are the same. The outfalls are just extensions of the drainage system.

SWMU Nos. to Combine	SWMU Names	New SWMU Name
o 9	Loading Station for Fuel Tanks	Fuel Tank Loading Area
10	Secondary Containment for Fuel Tanks	

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SWMU Nos. to Combine	SWMU Names	New SWMU Name
o 21	Baghouse No. 3	Baghouses 3, 5 and Former Baghouse
23	Baghouse No. 5	
24	Former Baghouse	
o 39	Stormwater Drainage System	Stormwater Drainage System - Plant 1
5	Inground oil/water separator	
6	Hydraulic oil/water separator	
48	Outfall 004 Drainage Area	
o 39	Stormwater Drainage System	Stormwater Drainage System - Plant 2
28	Sweat furnace oil/water separator	
45	Outfall 001 Drainage Area	
46	Outfall 002 Drainage Area	
47	Outfall 003 Drainage Area	

In summary, Table I lists the SWMUs and AOCs, the suggested further actions as listed in the Draft RFA, and the further action to be taken following the review of the Draft RFA. Shown on the table are: (1) action items which will be performed by Roth Bros. Smelting Corp.; (2) action items which will be incorporated into the CMS; (3) SWMUs which will be combined; and (4) SWMUs with *no further action necessary.*

CLOSING

This letter presents our comments on the review of the Draft RFA Report. The Environmental Investigations already performed by H&A of New York will serve as an RCRA Facility Investigation (RFI). Suggested further actions as identified in Table I will be incorporated

directly into the CMS. NYSDEC has provided verbal direction (with written direction forthcoming) to start the CMS. Therefore, where the Draft RFA suggests further action in the form of an RFI, it will instead be incorporated in the CMS. Should you have any questions, please do not hesitate to contact us.

Sincerely yours,
H&A OF NEW YORK

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EDH/LPS/VBD/gma:LNHDD02

xc: Neal Schwartz, Roth Bros.
Paul Patel, NYSDEC
Bob Harvey, NHDD

Attachments: Blasland and Bouck Engineers, P.C., Report and
Analytical Results
SWMU/AOC Location Map
Table I - List of SWMUs and AOCs Requiring Further Action

TABLE I

LIST OF SWMUs AND AOCs REQUIRING FURTHER ACTION
ROTH BROS. SMELTING CORP.

SWMU No.	SWMU Name	Draft RFA Suggested Further Action	Further Action to be Taken
4	Aluminum Furnaces (3)	Evaluate Emission Controls	To be carried out by Roth Bros.; recommend removal from SWMU list.
5	Inground Oil/Water Separator	Integrity Testing	To be carried out by Roth Bros.; combine into SWMU 39, Plant 1.
6	Hydraulic Oil/Water Separator	Integrity Testing	To be carried out by Roth Bros.; combine into SWMU 39, Plant 1.
7	Hydraulic Oil Empty Drum Storage Area	RCRA Facility Investigation	RFI completed; however, limited sampling to be incorporated into the CMS.
8	Aluminum Turnings Storage Yard	RCRA Facility Investigation	RFI completed. No further action necessary. Recommend removal from SWMU list.
9	Loading Station for Fuel Tanks	Confirmatory Sampling	Combine SWMU 9 and 10. Sample for Total Petrol. Hydrocarbons, Volatiles (EPA Method 8020) and Semi-Volatile (EPA Method 8270).
10	Secondary Containment for Fuel Tanks	Confirmatory Sampling/Cease Discharging Collected Liquids	See SWMU 9; direct liquids to oil/water separator - to be carried out by Roth Bros.
13	Northeast Drainage Ditch	Confirmatory Sampling	RFI completed; however, limited sampling to be incorporated into the CMS.
20	Dust Collector	Evaluate Emission Controls	To be carried out by Roth Bros.
22	Baghouse No. 4	RCRA Facility Investigation	RFI completed, remediation to be incorporated into the CMS.
28	Sweat Furnace Oil/Water Separator	Integrity Testing	To be carried out by Roth Bros. Facility; combine into SWMU 39.
29	Northern Waste Storage Area	RCRA Facility Investigation	RFI completed; limited sampling and remediation to be incorporated into the CMS.
31	Waste Oil burner	Evaluate Emission Controls	To be carried out by Roth Bros.

TABLE I
(Continued)

SWMU No.	SWMU Name	Draft RFA Suggested Further Action	Further Action to be Taken
32	Steam Cleaning Room	RCRA Facility Investigation	RFI completed. No further action necessary with respect to groundwater; total lead in soils to be evaluated in the CMS.
33	Diesel Pumping Station	RCRA Facility Investigation	RFI completed. No further action necessary with respect to groundwater. Total lead in soils to be evaluated in the CMS.
39	Stormwater Drainage System	Integrity Testing	Integrity testing: incorporate into CMS. Split into two SWMUs for Plant 1 and for Plant 2. Plant 1 to include SWMUs 5, 6 and 48. Plant 2 to include SWMUs 28, 45, 46 and 47.
42	Lead Dross Shed	RCRA Facility Investigation	RFI completed. Recommend removal from SWMU list.
43	Suspected Oil Seep Area	RCRA Facility Investigation	RFI completed. No further action necessary.
44	Former substation	Confirmatory Sampling	One shallow soil sample to be collected for Semi-Volatiles (EPA Method 8270).
45	Outfall 001 Drainage Area	RCRA Facility Investigation	RFI completed; remediation to be incorporated into the CMS. Combine into SWMU 39.
46	Outfall 002 Drainage Area	RCRA Facility Investigation	RFI completed; remediation to be incorporated into the CMS. Combine into SWMU 39.
47	Outfall 003 Drainage Area	RCRA Facility Investigation	RFI completed; remediation to be incorporated into the CMS. Combine into SWMU 39.
48	Outfall 004 Drainage Area	RCRA Facility Investigation	RFI completed; remediation to be incorporated into the CMS. Combine into SWMU 39.
AOC	**AOC Name**	**Suggested Further Action**	**Further Action to be Taken**
B	Lime Ash Bag Storage Area	Evaluate Emission Controls	To be carried out by Roth Bros.

BLASLAND & BOUCK ENGINEERS, P.C.
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December 28, 1989

Mr. Lawrence Blue
Environmental Analyst
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Re: Roth Bros. Smelting Corp.

File: 506.01 #2

Dear Mr. Blue:

On October 19, 1989, Blasland & Bouck Engineers, P.C. (Blasland & Bouck) conducted a soil investigation at the Roth Bros. Smelting Corp. in Syracuse, New York (Figure 1). This investigation was conducted in response to issues raised during an environmental audit performed by Environmental Risk Limited, as a requirement for Pollution Liability Insurance. The objective of the investigation was to determine if soils in selected areas at the site have been impacted by plant activities.

Scrap Metal Area

Eight soil borings (B-1 through B-8) were located in an unpaved area east of Plant No. 1 (Figure 2) to determine if soil has been impacted by the storage of oily scrap metal. Soil samples were obtained at each boring from 0 to 4 feet below grade. Two-foot long, three-inch diameter split-spoon samples were driven in two-foot increments using a 140-pound hammer. An on-site geologist obtained two-foot composite soil samples for possible laboratory analysis immediately after the sampler was opened. A two-foot composite soil sample was also placed inside a half-pint glass jar for evaluation of the sample for organic vapors and the jar was sealed using aluminum foil.

Visual examination of each soil sample by the on-site geologist indicated that sand and silt fill material was encountered across the scrap metal area from the surface to four feet below grade. Pieces of wood, brick, and metal shavings were also present in some of the soil samples. Saturation was encountered at a depth of approximately three to four feet. The subsurface descriptions for each boring are presented in Attachment A.

Headspace screening was performed on each composite soil sample using an organic vapor analyzer (OVA). Each sample was allowed to warm to room temperature, then the aluminum foil seal was pierced using the OVA probe and an organic vapor concentration was recorded. The results of the soil screening are presented in Attachment B.

Based on the results of the soil screening, visual examination, and spatial coverage, six soil samples were selected for laboratory analysis. Soil samples that exhibited the highest organic vapor concentrations were considered for analysis. Soil samples were selected from Borings B-1, B-6, B-7, and B-8 from the two to four foot intervals based on elevated OVA readings. Samples were also selected from Borings B-4 and B-5 from the two to four foot interval partially because of the elevated OVA readings and partially to provide a distribution of samples over the unpaved area.

Each soil sample submitted to the laboratory was analyzed for total petroleum hydrocarbons by flame ionization detection using the New York State Department of Health (NYSDOH) Method 310-13; polychlorinated biphenyls (PCBs) using EPA Method 8080; and halogenated and aromatic hydrocarbons using EPA Methods 8010 and 8020, respectively. Selected soil samples were analyzed for EP Toxicity metals, as well as for aluminum, copper, and zinc using the EPA Method 1310 extraction method. Metal analyses were then performed using the following EPA Methods: arsenic (7060), barium (7080), cadmium (7130), chromium (7190), lead (7420), mercury (7470), selenium (7740), silver (7760), aluminum (7020), copper (7210), and zinc (7950). The results of the laboratory analyses are presented in Attachment C. A summary of the soil analytical results is presented as Attachment D.

Results of the subsurface investigation in the scrap metal area indicate that the concentration of metals and volatile organic compounds in the soil samples submitted for analyses are all below available state or federal standards or guideline action levels. A PCB concentration of 11 parts per million (ppm) was detected from the two to four foot sample depth at B-8, directly adjacent to the paved area. However, the United State Environmental Protection Agency (USEPA) guideline action level for restricted access locations, like the scrap metal area, is 25 ppm. No kerosene, gasoline, or fuel oil was present at or above method detection limits in any of the samples from the scrap metal storage area which were submitted for analysis. Lubricating oils were detected in four of the samples, B-1, B-4, B-7, and B-8, but could not be accurately quantified with the total petroleum hydrocarbon analysis. An oil and grease scan was then performed to obtain an approximation of the concentration of lubricating oil present in these four samples. The oil and grease results are presented in Attachment C. Oil and grease results ranged from 8,800 ppm to 45,000 ppm for the four samples.

Three of the samples analyzed (B-4, B-7, and B-8) are located along the boundary between the existing concrete and the unpaved area. Sample B-1 is located along the southern side of the unpaved area away from an area of possible run-on from the paved storage yard.

Tank Area

Three soil borings (B-9, B-10, and B-11) were located near Plant No. 2 to determine if soil has been impacted by the three underground storage tanks (Figure 3). Soil borings were located adjacent to the 1,000-gallon leaded gasoline tank, the 2,000-gallon unleaded gasoline tank, and the 2,000-gallon diesel tank. Soil samples were obtained, in the same manner as previously described, to a depth below the assumed bottom of the tanks, based on information supplied to Blasland & Bouck by Roth Bros. personnel.

Asphalt underlain by a silt and sand fill layer was encountered from the surface to approximately 5 to 7 feet below grade. A compact red to brown glacial till layer was encountered from approximately 5 to 7 feet below grade to the bottom of each boring at approximately 11 feet. The subsurface soil descriptions are presented in Attachment A. Hydrocarbon odors were noted in the shallow sample taken from B-11 near the diesel tank and appeared to be the result of possible surface spillage. Headspace screening was performed on each composite soil sample using an OVA, as described previously, and the results for B-9, B-10, and B-11 are presented in Attachment B.

Based on the results of the soil screening and visual examination, three soil samples, one from each boring, were selected for laboratory analysis. Each soil sample submitted to the laboratory was analyzed for total petroleum hydrocarbons, PCBs, halogenated and aromatic hydrocarbons, and EP Toxicity metals plus aluminum, copper, and zinc. Extraction and analytical methodologies were identical to those samples submitted from the scrap metal area. Analytical results for B-9, B-10, and B-11 are presented in Attachment C.

Results of the subsurface investigation in the tank area, as summarized in Attachment D, indicate that concentrations of metals, volatile organic compounds, and PCBs are all below available state or federal standards or guideline action levels. No kerosene, gasoline, fuel oil, or lubricating oil was present at or above method detection limits in the soil samples submitted from B-9, B-10, or B-11.

Laboratory results from the tank area and the scrap metal area for the halogenated organic analyses indicate that trichloroethylene was detected in the field and trip blanks which were submitted along with the soil samples. Further investigation indicated that the source of the trichloroethylene was

attributed to laboratory contamination and not to contamination associated with the soil samples. Trichloroethylene was not detected in any of the soil samples analyzed.

In general, testing in the scrap metal area indicates the presence of oil and grease compounds, primarily lubricating oil or cutting oils, that have possibly washed off the stored scrap metal and percolated into the soil. PCBs were detected in one soil sample at two to four feet raising concerns over the possible concentration in surface soils. To address these concerns, a program is being developed to analyze surface samples for PCBs, as well as investigate the possible impact of oil and grease on ground water in the scrap metal area. No significant impacts were detected near the underground storage tanks.

If you have any questions concerning this report, please feel free to contact me.

Very truly yours,

BLASLAND & BOUCK ENGINEERS, P.C.

Mark F. Weider
Associate

MFW/mey
Attachments

ATTACHMENT A

SUBSURFACE SOIL DESCRIPTION

ATTACHMENT A

ROTH BROS.
SUBSURFACE SOIL DESCRIPTION

A. Scrap Metal Area Borings B-1 through B-8

Boring Number	Description
B-1	
0-4'	Red to brown fine to medium sand and silt, little clay and coarse sand, trace fine gravel, FILL, black staining from 2 to 4 feet, moist.
B-2	
0-2.0'	Red to brown fine to coarse sand and silt, little clay, trace fine gravel, FILL, moist.
2.0-4.0'	Dark grey silt, some fine sand and clay, FILL, wet at 3 feet.
B-3	
0-2.5'	Red to brown fine to medium sand, some silt and clay, trace fine gravel, FILL, moist.
2.5-3.0'	Light grey silt and fine sand, trace clay, FILL, moist.
3.0-4.0'	Dark brown silt, fine sand, trace clay, FILL, wet at 3.5 feet.
B-4	
0-2.5'	Dark grey to brown fine sand and silt, trace clay, FILL, moist.
2.5-3.5'	Dark brown fine sand and silt, FILL, moist.
3.5-4.0'	Light grey to white fine sand and silt, FILL, wet at 4 feet.
B-5	
0-2.5'	Red to brown fine sand and silt, trace clay and fine gravel, FILL, moist.
2.5-4.0'	Dark grey fine sand and silt, FILL, wet at 3.5 feet.

Boring Number	Description
B-6	
0-2.5'	Red to brown fine to coarse sand and silt, little clay, trace fine gravel, FILL, black staining at surface, moist.
2.5-4.0'	Dark grey SILT and fine SAND, plant matter, wet at 3.5 feet.
B-7	
0-4.0'	Dark red to brown fine to coarse sand and gravel, some silt and clay, FILL, pieces of wood, black staining from 0 to 4 feet, moist.
B-8	
0-4.0'	Brown fine to coarse sand, some fine gravel and silt, trace clay, FILL, pieces of metal, brick, and wood, black staining from 2 to 4 feet, moist.

B. Tank Area Borings B-9 through B-11

Boring Number	Description
B-9	
0-1.5'	Black ASPHALT and fine to medium gravel, FILL, moist.
1.5-5.0'	Red to brown fine to medium sand and silt, little clay, trace fine gravel, FILL, moist.
5.0-10.5'	Red to brown fine to medium sand and silt, little clay, trace fine gravel, TILL, moist.
B-10	
0-1.5'	Black ASPHALT and fine to medium gravel, FILL, moist.
1.5-6.0'	Red to brown fine sand and silt, trace clay and fine gravel, FILL, moist.
6.0-11.0'	Red to brown fine sand and silt, little medium to coarse sand, trace clay and fine gravel, TILL, moist.

ATTACHMENT A (Cont'd.)

Boring Number	Description
B-11	
0-1.0'	Black ASPHALT and fine to medium gravel FILL, moist.
1.0-2.5'	Dark grey fine sand, some silt, FILL, black staining, product odors, moist.
2.5-6.5'	Red to brown fine sand, some silt, little clay and coarse sand, FILL, black staining from 3 to 4.5 feet, wet at 6 feet.
6.5-11.0'	Red to brown fine to coarse sand and silt, little clay, trace fine gravel, TILL, moist.

ATTACHMENT B

SOIL VAPOR SCREENING RESULTS

ATTACHMENT B

ROTH BROS.
SOIL VAPOR SCREENING RESULTS

A. Scrap Metal Area

Boring Number	Interval (feet)	Ambient Air (ppm)	OVA Value (ppm)
B-1	0-2	1.0	2
	2-4x	1.0	10,000
B-2	0-2	2.0	3
	2-4	2.0	500
B-3	0-2	2.0	2.5
	2-4	2.0	6
B-4	0-2	2.5	20
	2-4x	2.5	200
B-5	0-2	2.5	3.5
	2-4x	2.5	600
B-6	0-2	3.0	3
	2-4x	3.0	10,000
B-7	0-2	3.0	3.5
	2-4x	3.0	10,000
B-8	0-2	3.0	7
	2-4x	3.0	7,000

B. Tank Area

Boring Number	Interval (feet)	Ambient Air (ppm)	OVA Value (ppm)
B-9	1-3	3.0	60
	3-5x	3.5	20
	5-7	3.5	5.5
	7-8.2	3.5	8
	9-10.5	3.5	7
B-10	1-3	3.5	7
	3-5	3.5	9
	5-7x	3.5	20
	7-9	3.5	5
	9-11	3.5	4
B-11	1-3	3.5	20
	3-5	3.5	6
	5-7	3.5	4.5
	7-9x	3.5	20
	9-11	3.5	12

x Sample submitted for analysis for Volatile Organics, PCBs, EP Toxicity Metals plus Aluminum, Copper, and Zinc, and Total Petroleum Hydrocarbons.

12/22/89
1289199GG

ATTACHMENT C

LABORATORY ANALYSES RESULTS

Report Number 111089001
Date: November 10, 1989

CLIENT I.D. Blasland, Bouck & Lee Engineers, P.C. (Roth Brothers, Project #506.01)	B-1 2-4' 10/19/89	B-4 2-4' 10/19/89	B-5 2-4' 10/19/89	B-6 2-4' 10/19/89
ULI I.D.	29389063	229389064	22989065	22989066
FID:				
Gasoline	Non-Detected	Non-Detected	Non-Detected	Non-Detected
Kerosene	<20 mg/kg	<20 mg/kg	<10 mg/kg	<20 mg/kg
Fuel Oil	<20 mg/kg	<20 mg/kg	<10 mg/kg	<20 mg/kg
Lubricating Oil	Detected	Detected	Non-Detected	Non-Detected
Total PCBs *	<2	<2	<2	<5
EP TOXICITY:				
Aluminum	3.5	<0.5	<0.5	3.0
Arsenic	0.024	<0.001	0.003	0.020
Barium	1.2	<0.3	0.6	0.8
Cadmium	<0.005	<0.005	<0.005	0.007
Chromium	<0.05	<0.05	<0.05	<0.05
Copper	0.13	<0.02	0.02	0.09
Lead	0.3	0.1	<0.1	0.4
Mercury	<0.0004	<0.0004	0.0007	<0.0004
Selenium	<0.001	<0.001	<0.001	<0.001
Silver	<0.05	<0.05	<0.05	<0.05
Zinc	4.6	0.20	0.45	2.4

All results are expressed as mg/l unless otherwise stated.
*Results are expressed as mg/kg dry weight.
Sampled by client.

Approved: _____ BVL 11/10/89

Note: See disclaimer on cover letter.

Analysis Report
Report Number 111089001
Date: November 10, 1989

CLIENT I.D. Blasland, Bouck & Lee Engineers, P.C. (Roth Brothers, Project #506.01)	B-7 2-4' 10/19/89	B-8 2-4' 10/19/89	B-9 3-5' 10/19/89	B-10 5-7' 10/19/89
ULI I.D.	29389067	29389068	29389069	29389070
FID:				
Gasoline	Non-Detected	Non-Detected	Non-Detected	Non-Detected
Kerosene	<150 mg/kg	<350 mg/kg	<10 mg/kg	<10 mg/kg
Fuel Oil	<150 mg/kg	<350 mg/kg	<10 mg/kg	<10 mg/kg
Lubricating Oil	Detected	Detected	Non-Detected	Non-Detected
Total PCBs *	<2	11	<2	<2
EP TOXICITY:				
Aluminum	7.2	3.4	<0.5	0.5
Arsenic	0.016	0.008	<0.001	0.001
Barium	1.0	0.7	0.7	0.5
Cadmium	0.018	0.44	<0.005	<0.005
Chromium	<0.05	<0.05	<0.05	<0.05
Copper	0.15	0.16	0.05	0.07
Lead	0.5	1.0	<0.1	<0.1
Mercury	<0.0004	<0.0004	<0.0004	<0.0004
Selenium	<0.001	<0.001	<0.001	<0.001
Silver	<0.05	<0.05	0.05	<0.05
Zinc	6.9	22	0.10	0.35

All results are expressed as mg/l unless otherwise stated.
*Results are expressed as mg/kg dry weight.
Sampled by client.

Approved: _____ ML 11/10/89

Note: See disclaimer on cover letter.

Report Number 111089001
Date: November 10, 1989

CLIENT I.D. Blasland, Bouck & Lee Engineers, P.C. (Roth Brothers, Project #506.01)	B-11 7-9' 10/19/89	Field Blank 10/19/89		
ULI I.D.	29389071	29389072		
FID:				
Gasoline	Non-Detected	Non-Detected		
Kerosene	<10 mg/kg	<0.1 ug/l		
Fuel Oil	<10 mg/kg	<0.1 ug/l		
Lubricating Oil	Non-Detected	Non-Detected		
Total PCBs	<2 *	<0.1 ug/l		
TOTAL:				
Aluminum	--	<0.5		
Arsenic	--	<0.001		
Barium	--	<0.3		
Cadmium	--	<0.005		
Chromium	--	<0.05		
Copper	--	<0.02		
Lead	--	<0.1		
Mercury	--	<0.0004		
Selenium	--	<0.001		
Silver	--	<0.05		
Zinc	--	<0.005		
EP TOXICITY:				
Aluminum	0.8	--		
Arsenic	0.001	--		
Barium	0.5	--		
Cadmium	<0.005	--		
Chromium	<0.05	--		
Copper	0.07	--		
Lead	<0.1	--		
Mercury	<0.0004	--		
Selenium	<0.001	--		
Silver	<0.05	--		
Zinc	0.18	--		

All results are expressed as mg/l unless otherwise stated.
*Results are expressed as mg/kg dry weight.
Sampled by client.

Approved: _____ ML 11/10/89

Note: See disclaimer on cover letter.

Report Number 111089001
Date: November 10, 1989

EPA 601/602

CLIENT I.D. Blasland, Bouck & Lee Engineers, P.C. (Roth Brothers, Project #506.01)	B-1 2-4' 10/19/89	B-4 2-4' 10/19/89	B-5 2-4' 10/19/89	B-6 2-4' 10/19/89
ULI I.D.	29389063	29389064	29389065	29389066
EPA 601:				
Chloromethane	<23	<22	<21	<22
Bromomethane	<23	<22	<21	<22
Dichlorodifluoromethane	<23	<22	<21	<22
Vinyl Chloride	<23	<22	<21	<22
Chloroethane	<23	<22	<21	<22
Methylene Chloride *	<23	<22	<21	<22
Trichlorofluoromethane	<23	<22	<21	<22
1,1-Dichloroethylene	<23	<22	<21	<22
1,1-Dichloroethane	<23	<22	<21	<22
t-1,2-Dichloroethylene	<23	<22	<21	<22
Chloroform *	<23	<22	<21	<22
1,2-Dichloroethane	<23	<22	<21	<22
1,1,1-Trichloroethane	<23	<22	<21	<22
Carbon Tetrachloride	<23	<22	<21	<22
Bromodichloromethane	<23	<22	<21	<22
1,2-Dichloropropane	<23	<22	<21	<22
t-1,3-Dichloropropylene	<23	<22	<21	<22
Trichloroethylene	<23	<22	<21	<22
Dibromochloromethane	<23	<22	<21	<22
1,1,2-Trichloroethane	<23	<22	<21	<22
c-1,3-Dichloropropylene	<23	<22	<21	<22
1,1,2,2-Tetrachloroethane	<23	<22	<21	<22
Tetrachloroethylene	<23	<22	<21	<22
Bromoform	<23	<22	<21	<22
2-Chloroethylvinyl Ether	<23	<22	<21	<22
EPA 602 (including Xylenes):				
Benzene	<23	<22	<21	<22
Toluene	<23	<22	<21	<22
Ethylbenzene	<23	<22	<21	<22
Xylenes	<23	<22	<21	<22
Halogenated Aromatics (601/602):				
Chlorobenzene	<23	<22	<21	<22
1,2-Dichlorobenzene	<23	<22	<21	<22
1,3-Dichlorobenzene	<23	<22	<21	<22
1,4-Dichlorobenzene	<23	<22	<21	<22

All results are expressed as ppb. *Blank corrected.
Sampled by client.

Approved: _____ MC 11/10/89

Note: See disclaimer on cover letter.

Report Number 111089001
Date: November 10, 1989

EPA 601/602

CLIENT I.D. Blasland, Bouck & Lee Engineers, P.C. (Roth Brothers, Project #506.01)	B-7 2-4' 10/19/89	B-8 2-4' 10/19/89	B-9 3-5' 10/19/89	B-10 5-7' 10/19/89
ULI I.D.	29389067	29389068	29389069	29389070
EPA 601:				
Chloromethane	<21	<20	<22	<22
Bromomethane	<21	<20	<22	<22
Dichlorodifluoromethane	<21	<20	<22	<22
Vinyl Chloride	<21	<20	<22	<22
Chloroethane	<21	<20	<22	<22
Methylene Chloride *	<21	<20	<22	<22
Trichlorofluoromethane	<21	<20	<22	<22
1,1-Dichloroethylene	<21	<20	<22	<22
1,1-Dichloroethane	<21	<20	<22	<22
t-1,2-Dichloroethylene	<21	<20	<22	<22
Chloroform *	<21	<20	<22	<22
1,2-Dichloroethane	<21	<20	<22	<22
1,1,1-Trichloroethane	<21	<20	<22	<22
Carbon Tetrachloride	<21	<20	<22	<22
Bromodichloromethane	<21	<20	<22	<22
1,2-Dichloropropane	<21	<20	<22	<22
t-1,3-Dichloropropylene	<21	<20	<22	<22
Trichloroethylene	<21	<20	<22	<22
Dibromochloromethane	<21	<20	<22	<22
1.1,2-Trichloroethane	<21	<20	<22	<22
c-1,3-Dichloropropylene	<21	<20	<22	<22
1,1,2,2-Tetrachloroethane	<21	<20	<22	<22
Tetrachloroethylene	<21	<20	<22	<22
Bromoform	<21	<20	<22	<22
2-Chloroethylvinyl Ether	<21	<20	<22	<22
EPA 602 (including Xylenes):				
Benzene	<21	<20	<22	<22
Toluene	<21	<20	<22	<22
Ethylbenzene	<21	<20	<22	<22
Xylenes	<21	<20	<22	<22
Halogenated Aromatics (601/602):				
Chlorobenzene	<21	<20	<22	<22
1,2-Dichlorobenzene	<21	<20	<22	<22
1,3-Dichlorobenzene	<21	<20	<22	<22
1,4-Dichlorobenzene	<21	<20	<22	<22

All results are expressed as ug/l. *Blank corrected.
Sampled by client.

Approved: _____ mc 11/10/89

Note: See disclaimer on cover letter.

Analysis Results
Report Number 111089001
Date: November 10, 1989

EPA 601/602

CLIENT I.D. Blasland, Bouck & Lee Engineers, P.C. (Roth Brothers, Project #506.01)	B-11 7-9' 10/19/89	Field Blank 10/19/89	Trip Blank: (Received 10/20/89)
ULI I.D.	29389071 *	29389072	29389073
EPA 601:			
Chloromethane	<22	<1	<1
Bromomethane	<22	<1	<1
Dichlorodifluoromethane	<22	<1	<1
Vinyl Chloride	<22	<1	<1
Chloroethane	<22	<1	<1
Methylene Chloride **	<22	<5	<5
Trichlorofluoromethane	<22	<1	<1
1,1-Dichloroethylene	<22	<1	<1
1,1-Dichloroethane	<22	<1	<1
t-1,2-Dichloroethylene	<22	<1	<1
Chloroform **	<22	<1	<1
1,2-Dichloroethane	<22	<1	<1
1,1,1-Trichloroethane	<22	<1	<1
Carbon Tetrachloride	<22	<1	<1
Bromodichloromethane	<22	<1	<1
1,2-Dichloropropane	<22	<1	<1
t-1,3-Dichloropropylene	<22	<1	<1
Trichloroethylene	<22	12	10
Dibromochloromethane	<22	<1	<1
1,1,2-Trichloroethane	<22	<1	<1
c-1,3-Dichloropropylene	<22	<1	<1
1,1,2,2-Tetrachloroethane	<22	<1	<1
Tetrachloroethylene	<22	<1	<1
Bromoform	<22	<1	<1
2-Chloroethylvinyl Ether	<22	<1	<1
EPA 602 (including Xylenes):			
Benzene	<22	<1	<1
Toluene	<22	<1	<1
Ethylbenzene	<22	<1	<1
Xylenes	<22	<1	<1
Halogenated Aromatics (601/602):			
Chlorobenzene	<22	<1	<1
1,2-Dichlorobenzene	<22	<1	<1
1,3-Dichlorobenzene	<22	<1	<1
1,4-Dichlorobenzene	<22	<1	<1

All results are expressed as ug/l unless otherwise stated.
*Results are expressed as ppb. **Blank corrected.
Sampled by client.
NYS DOH I.D.: 10170

Approved: _____ MC 11/10/89
Note: See disclaimer on cover letter.

UPSTATE LABORATORIES, INC.
Analysis Results
Report Number 112989021
Date: November 29, 1989

CLIENT I.D. Blasland, Bouck & Lee Engineers, P.C. (Roth Brothers, Project #506.01)	ULI I.D.	Oil and Grease			
B-1, 2-4', 10/19/89	33189002	9700			
B-4, 2-4', 10/19/89	33189003	8800			
B-7, 2-4', 10/19/89	33189004	45,000			
B-8, 2-4', 10/19/89	33189005	9100			

All results are expressed as ppm as received.
Sampled by client.
NYS DOH I.D.: 10170

Approved: _____ 11/29/89

Note: See disclaimer on cover letter.

ATTACHMENT D

SOIL ANALYTICAL SUMMARY

ATTACHMENT D

ROTH BROS.
SOIL ANALYTICAL SUMMARY

	B-1 2-4'	B-4 2-4'	B-5 2-4'	B-6 2-4'	B-7 2-4'	B-8 2-4'	B-9 3-5'	B-10 5-7'	B-11 7-9'	Trip Blank	Field Blank	Std.[1]
PCBs (mg/kg)												
Total PCBs						11						
Metals (mg/l)												
Aluminum	3.5			3.0	7.2	3.4		0.5	0.8			NA
Arsenic	0.024		.003	0.02	0.016	.008		0.001	0.001			5.0
Barium	1.2		0.6	0.8	1.0	0.7	0.7	0.5	0.5			100.0
Cadmium				0.007	0.018	0.44						1.0
Copper	0.13		0.02	0.09	0.15	0.18	0.05	0.07	0.07			NA
Lead	0.3	0.1		0.4	0.5	1.0						5.0
Mercury			.0007									0.2
Silver							0.05					5.0
Zinc	4.6	0.20	0.45	2.4	6.9	22	0.10	0.35	0.18			NA
Total Petroleum Hydrocarbons												
Lubricating Oil	D	D			D	D						
Oil & Grease (ppm)	9,700	8,000			45,000	9,100						
Volatile Organics (ug/l)												
Trichloro-ethylene										10	12	

FOIL205575

ATTACHMENT D (Cont'd.)

Notes:

Only compounds at or above detection units are shown
NA - Not Available
[1] - USEPA 40 CFR Part 261
D - Detected (quantity approximated by oil & grease scan)

ROTH BROS. SMELTING CORP
SYRACUSE, NEW YORK

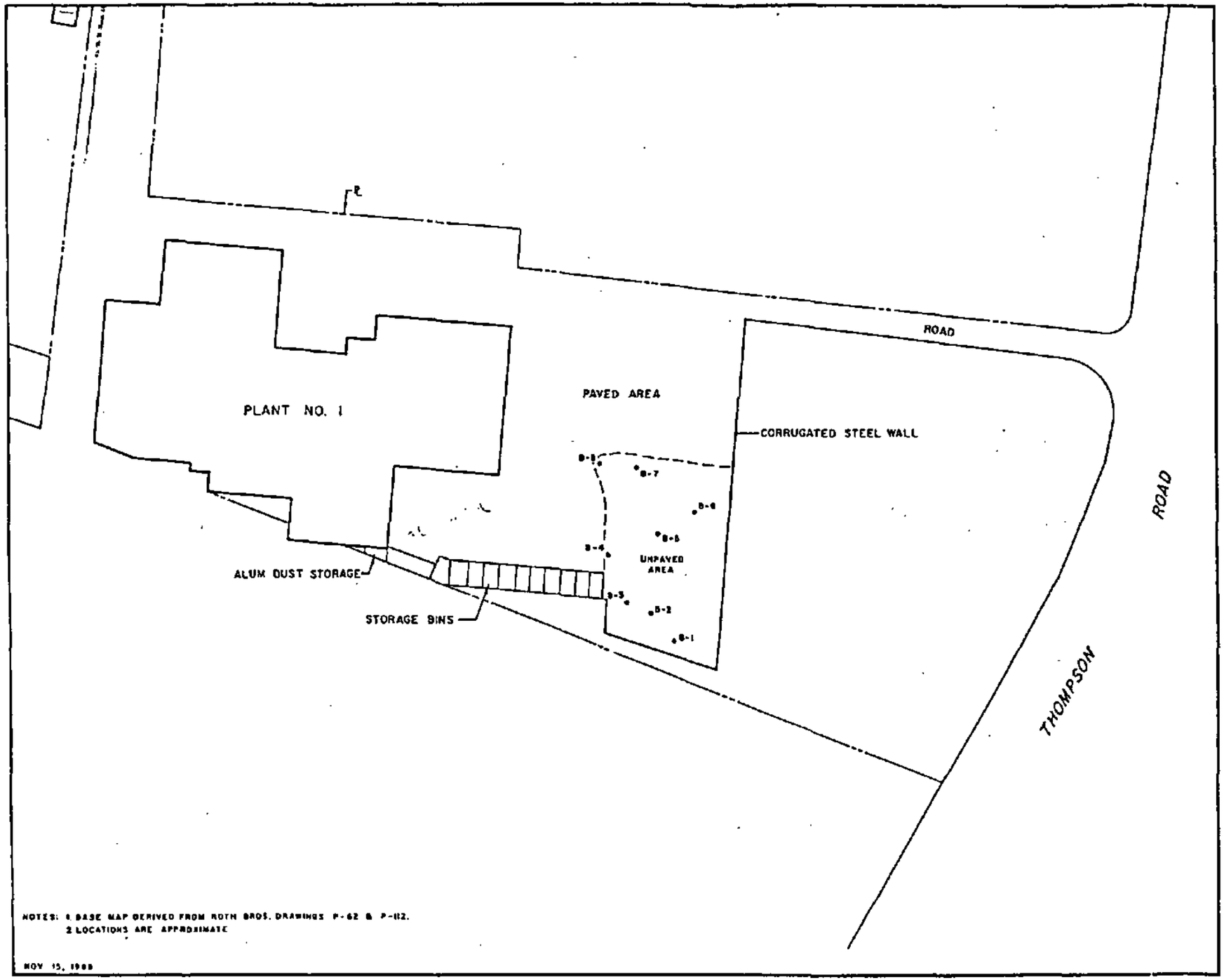
SITE LOCATION MAP

SCALE

2000' 0 2000'

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS

FIGURE 2



LEGEND

B-6 SOIL BORING LOCATION

ROTH BROS. SMELTING CORP.
SYRACUSE, NEW YORK

SOIL BORING LOCATIONS
SCRAP METAL AREA

SCALE
100' 0 100'

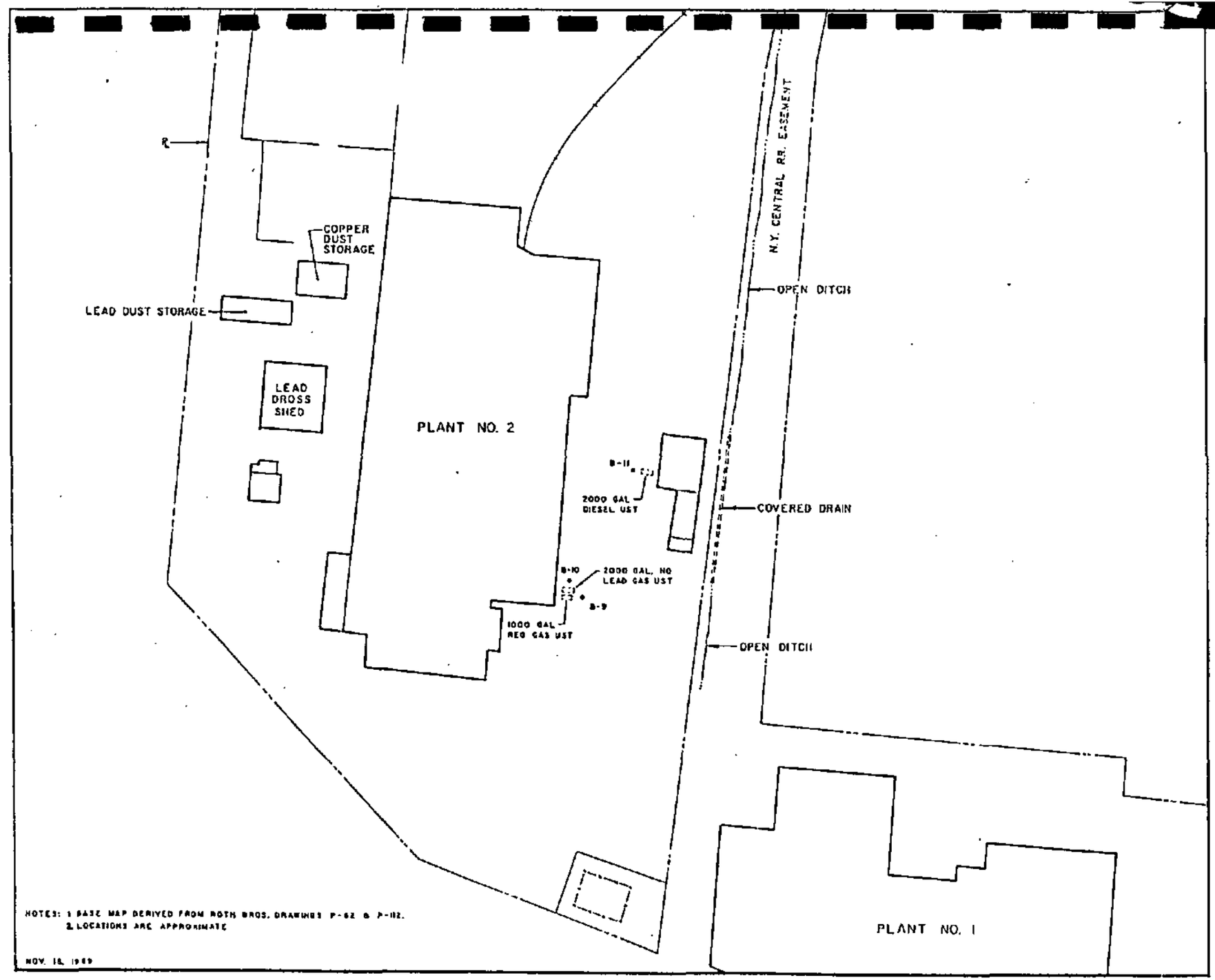
NOTES: 1 BASE MAP DERIVED FROM ROTH BROS. DRAWINGS P-62 & P-112.
2 LOCATIONS ARE APPROXIMATE

NOV 15, 1988

BLASLAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS

CT1200516

FIGURE 3



LEGEND

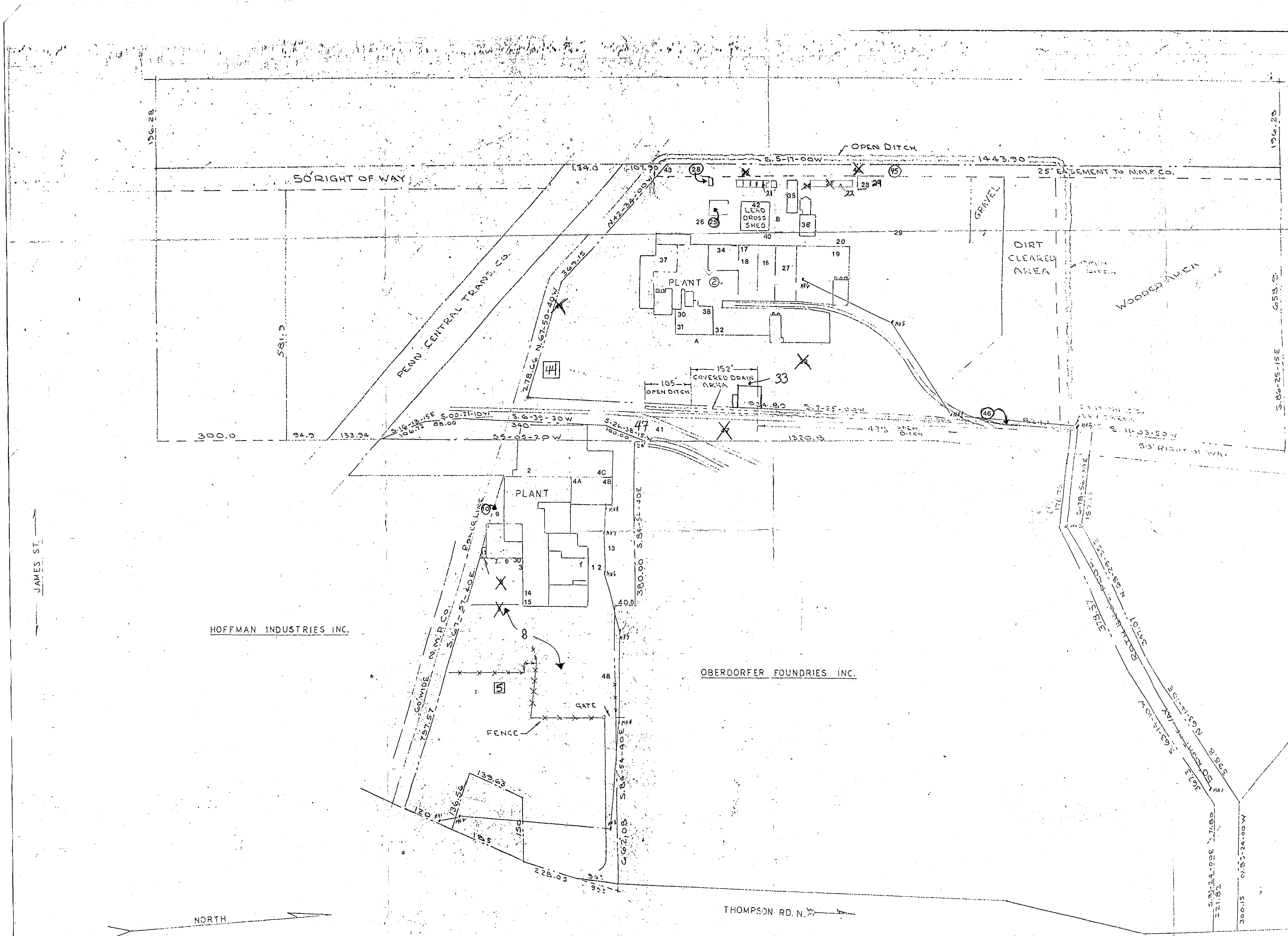
B-9 ● SOIL BORING LOCATION

ROTH BROS. SMELTING CORP.
SYRACUSE, NEW YORK

SOIL BORING LOCATIONS
TANK AREA

SCALE
100' 0 100'

PLASEAND & BOUCK ENGINEERS, P.C.
ENGINEERS & GEOSCIENTISTS



SWMU NO.	SWMU NAME
Plant No. 1	
1	Chip Dryer
2	Baghouse No. 1
3	Baghouse No. 2
4	Aluminum Furnaces (3)
5	Inground Oil/Water Separator
6	Hydraulic Oil/Water Separator
7	Hydraulic Oil Empty Drum Storage Area
8	Aluminum Turnings Storage Yard
9	Loading Station for Fuel Tanks
10	Secondary Containment for Fuel Tanks
11	Aluminum Dust Storage Area
12	Waste Aluminum Fines Storage Area
13	Northeast Drainage Ditch
14	Zamac Furnace
15	Zinc Pot
Plant No. 2	
16	Lead Furnace
17	Lead Pots (4)
18	Lead Tilt Furnace
19	Aluminum Crusher
20	Dust Collector
21	Baghouse No. 3
22	Baghouse No. 4
23	Baghouse No. 5
24	Former Baghouse
25	Copper Wire Incinerator
26	Sweat Furnace
27	Copper Furnace
28	Sweat Furnace Oil/Water Separator
29	Northern Waste Storage Area
30	Waste Oil Tanks (4)
31	Waste Oil Burner
32	Steam Cleaning Room
33	Diesel Pumping Station
34	Ion Exchange Unit
35	Lead Dust Storage Area
36	Copper Dust Storage Area
37	Laboratory Satellite Accumulation Area
38	Safety-Kleen Degreasers
39	Stormwater Drainage System — fig. III-2
40	Lead Particle Settling Unit
41	Outfall 003 Waste Pile
42	Lead Dross Shed
43	Suspected Oil Seep Area
44	Former Substation
45	Outfall 001 Drainage Area
46	Outfall 002 Drainage Area
47	Outfall 003 Drainage Area
48	Outfall 004 Drainage Area

AOC	AOC NAME
A	Former USTs
B	Lime Ash Bag Storage Area

24 is an approximate location

ROTH BROS SMELTING CO.
SYRACUSE, N.Y.

DATE 5-25-84 DRAWN BY R.E.M.

PLOT PLAN / PROPERTY LINES, BLDG'S.

FOIL205580